



Welcome to the AB 758 Workshop on the Comprehensive Energy Efficiency Program For Existing Buildings

California Energy Commission
Monday, October 8, 2012



Comprehensive Energy Efficiency Program For Existing Buildings

AB 758 Workshop
October 8-9, 2012

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Introduction

- AB 758 Activities to Date
- Program Phases
- Today's Agenda
- Next Steps
- Housekeeping



AB 758 Activities to Date

- ARRA Pilots (2009 – ongoing)
 - Influx of funding to pilot AB 758 program components
 - Regional focused comprehensive programs under Energy Upgrade California brand
 - Targeted nonresidential programs
 - Financing programs



AB 758 Program Phases

- **Phase I** – Program Development and Action Plan
- **Phase II** – Market Development and Partnerships
- **Phase III** – Widespread Program Deployment and Upgrade Requirements



AB 758 Phase I

- Scoping Report
 - Critical issues to be addressed to obtain deeper upgrades and options for addressing them
 - Stakeholder input to identify options and refine needs
- Action Plan
 - Define major goals and strategies for AB 758 program
 - Articulate proposed solutions to achieve efficiency goals
 - Establish a road map for implementation of the program



Next Steps

- Written Comments are due Oct 23 to the CEC
- Draft Action Plan by end of Calendar year
- Draft Action Plan workshops
- Action Plan adopted by March 2013
- Action Plan coordinated with CPUC planning for IOU direction in 2015-17 IOU programs



Workshop Agenda

- **Monday**

- Summary of Scoping Report
- Panels focused on Residential Sector
- Questions and Comments

- **Tuesday**

- Market Characterization and Program Goals
- Panels focused on Data Collection and Non-Residential
- Questions and Comments



Housekeeping

- Restrooms
- Snack Bar
- Emergency Exits



Commissioner Andrew McAllister
California Energy Commission



Commissioner Mark Ferron
California Public Utilities
Commission



**Comprehensive Energy Efficiency Program
For Existing Buildings (AB758)**

Scoping Report Summary

Bill Pennington

**Deputy Division Chief
Efficiency and Renewable Energy Division**



California's Heritage Programs

- California leader in standards, utility programs
 - Standards focus on newly constructed buildings, additions and equipment installation/replacement
 - Utility programs focus on single measure rebates
- **Must increase focus on existing buildings**



AB 758 Essentially Calls for Market Transformation

AB 758

- Comprehensive, multifaceted program
- Address critical program components to enable marketplace to grow and thrive

Market Transformation:

“long-lasting, sustainable changes in the structure or functioning of a market by reducing barriers to the point where continued public intervention is no longer needed”



Effective Program Design

- Benefits to costs must be compelling to motivate a property owner to action
- Value proposition

Compare: energy plus non-energy benefits
To costs, including transaction costs

- Program must provide installation quality, contractor accountability, program evaluation



AB 758 Key Actors

CEC

- o key implementer to develop the program
- o actively coordinate with stakeholders

CPUC

- o investigate IOUs providing efficiency financing,
- o report to the Legislature on each IOU's AB 758 work

POUs

- o focus on efficiency in existing buildings
- o report to the CEC on AB 758 programs



AB 758 Partnerships

- Contractors –
 - pivotal role in accomplishing upgrades,
 - make case for building owners to act
- Many other actors –
 - financing entities, training providers, raters, QA agents, program administrators, utilities, local governments
- **Successful partnerships to achieve scale**



AB 758 Program Phases

- **Phase I** – Infrastructure Development and Action Plan
 - ARRA pilot programs, Scoping Report, Action Plan
- **Phase II** – Market Development and Partnerships
 - Near-term Action Plan activities,
 - Define/develop collaborations
- **Phase III** – Ratings and Upgrades Requirements
 - Regulations enabled by voluntary program approaches



AB 758 Phase I

- ARRA Pilots (2009 – 2012+)
 - influx of funding to pilot AB 758 program components
 - Regional focused comprehensive programs under Energy Upgrade brand
 - Whole house performance linked to utility programs
 - Multi-family whole building programs in key regions
 - Targeted measure nonresidential programs
 - Financing programs (revolving loan, PACE, LLR)



AB 758 Phase I

- Scoping Report (Mar – Oct 2012)
 - Critical issues needed to be addressed to obtain deeper upgrades and options for addressing them
 - Stakeholders identify further options and refine needs
- Action Plan (Oct 2012 – Mar 2013)
 - Define major goals and strategies for AB 758 program
 - Articulate proposed solutions for Scoping Report issues
 - Establish a road map for implementation of the program



AB 758 Scoping Report Program Components

Investing in Energy Efficiency

- Financing Important to Enable Deeper Investments
- Improved project data collection and sharing needed to improve evaluation and facilitate access to secondary capital markets
- Presence and value of energy upgrades should be integrated with property valuation process



AB 758 Scoping Report Program Components

Workforce Development

- Well-qualified workers essential to quality; lasting savings, consumer confidence
- Must match marketplace needs for scale, content, location, accessibility, cost
- Industry must actively participate in assessing workforce needs to bridge skill gaps
- Apprenticeship could be effective in nonresidential



AB 758 Scoping Report Program Components

Residential Assessments and Ratings

- Assessment is cornerstone of home performance
 - project scope, customer education, test-in and test-out
- CA HERS ratings - widespread ratings would enable property valuation
- Ratings may or may not be useful to customers considering an upgrade project
- Assessment should calibrate to actual energy use



AB 758 Scoping Report Program Components

Nonresidential Assessments and Ratings

- Assessments are time and labor intensive – ASHRAE I-III protocols
- Building commissioning also key tool
- U.S. Ratings/disclosure - energy use ratings
- EU - provide asset ratings of building's features
- Disclosure done not just at property transfer



AB 758 Scoping Report Program Components

Energy Upgrade Programs

- EUC Programs encounter challenges
 - Tension between QA processes and program streamlining
 - Concern that assessment software not calibrated to bills, not designed to help get the customer to act
 - Program not cost effective, non-energy benefits don't count, threatens market transformation
- Nonresidential IOU whole building programs needed
- Build on EUC collaboration



AB 758 Scoping Report Program Components

Building Standards Compliance/Enforcement

- Building Standards requirements for alterations and appliance standards are important to AB 758
- Compliance levels are difficult to assess
- Major problem with pulling permits for HVAC changeouts – need shared effort among market actors



AB 758 Scoping Report Program Components

Marketing, Education and Outreach (ME&O)

- Critical for motivating behavior change
- EUC sought to minimize market confusion with brand
- CPUC extending EUC single umbrella brand for residential to include small commercial
- Platform for continued collaboration among CEC, CPUC, IOUs, POUs, regional partners, industry



AB 758 Scoping Report Program Components

Market Needs Centralized Data

- Market succeeds when project data is available
 - inform program design and evaluation
 - inform market actors in their business decisions
 - Needed for financing risk analyses / secondary market
- CPUC, IOUs and CEC collect valuable data
 - not managed in consolidated location,
 - generally not available for public use (even in redacted form)
- Market decision makers don't have access to this data



Action Plan Next Steps

- Written Comments on Scoping Report due Oct 23
- Build on Scoping Report and public comment
- Draft Action Plan by end of Calendar year
- Action Plan coordinated with CPUC planning for IOU direction for 2015-17 IOU programs
- Action Plan adopted by CEC by March 2013



QUESTIONS AND COMMENTS



BREAK



Day 1, Panel 1 Questions

1. What customers are choosing building performance upgrades today? Where are the opportunities for scaling upgrades?
2. What value do building assessments bring the homeowner and/or contractor? What should be their role in upgrade programs?
3. What is the role of rebates in efficiency upgrade programs? Can financial products/financing strategies motivate deeper retrofits in lieu of rebates? Are both needed to motivate deeper retrofits?
4. How can “reactive” interaction with customers (e.g., HVAC tune-ups or water heater replacements) best be leveraged to encourage whole house upgrades? How can such customer interaction encourage or enable future upgrades?
5. What milestones and metrics are most appropriate for measuring success of programs to motivate upgrade activity? Against what criteria or guiding principles should potential AB758 program initiatives be assessed and prioritized?
6. How can quality assurance be provided without excessive impact on the customer experience?
7. How can Marketing, Education and Outreach efforts leverage and coordinate with other efficiency programs, implementers and regions?
8. What workforce development is desirable for the residential sector?



LUNCH



Day 1, Panel 2 Questions

9. Under what conditions would it be appropriate to include an energy rating in an upgrade project?
10. At what other points in the life of a building would an energy rating be desirable?
11. What market barriers exist that limit the growth of the voluntary market for HERS ratings and assessments? Is there a role for ratepayer or public funding to overcome these barriers, if so, what level is appropriate and commensurate to benefits?
12. Is there a role for HERS providers and HERS raters in the whole house upgrade programs offered by utility providers or in financing offerings supported by public dollars?
13. What improvements could be made to the California HERS program and its use in utility whole house upgrade programs?



BREAK



Day 1, Panel 3 Questions

14. How do we address low-income consumers in whole building programs?
15. How can low- to moderate-income consumers gain access to deeper upgrade projects?
16. How can whole building programs be meshed with existing low-income programs? What barriers would need to be overcome? How can the fact that multifamily buildings have a mix of tenants that qualify for low-income assistance and tenants that do not qualify, be addressed so that whole building upgrades are feasible?
17. What are effective strategies for overcoming the split-incentive barrier, such as when building owners pay for the energy efficiency improvements but the benefits accrue to the renters?
18. What lessons learned from the San Diego multifamily whole building pilot should be extended into a statewide program? What issues need to be addressed?



CLOSING REMARKS



Thank You
for
Your Participation
Today